

IN THE CLAIMS:

Please amend claim 1 as follows, cancel claims 2-25 without prejudice and add new claims 26-72:

1. (Amended) A process for the production of an aqueous sol containing silica-based particles which comprises:

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- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
 - (b) alkalisng the acid sol at an SiO₂ content within the range of from 4.5 to 8% by weight to form an alkalisng sol having a pH of at least 7;
 - (c) allowing particle growth of the alkalisng sol for at least 10 minutes; and
 - (d) alkalisng the obtained sol to a pH of at least 10.0.

26. (New) The process according to claim 1, wherein the process further comprises:

- (e) concentrating the alkalisng sol obtained according to (b).

27. (New) The process according to claim 1, wherein the process further comprises:

- (e) concentrating the alkalisng sol subjected to particle growth obtained according to (c).

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28. (New) The process according to claim 1, wherein the process further comprises:

- (e) concentrating the alkalisng sol obtained according to (d).

29. (New) The process according to claim 1, wherein the aqueous sol obtained in the process has a specific surface area of at least 90 m²/g aqueous sol.

30. (New) The process according to claim 26, wherein the aqueous sol obtained in the process has a specific surface area of at least 95 m²/g aqueous sol.

31. (New) The process according to claim 1, wherein the alkalisng according to (b) and (d) is carried out by means of an aqueous silicate solution.

32. (New) The process according to claim 1, wherein the particle growth according to (c) is carried out at a temperature within the range of from 35 to 95°C.

33. (New) The process according to claim 1, wherein the alkalisation according to (d) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.

34. (New) The process according to claim 1, wherein the process further comprises addition of an aluminium-containing compound, a boron-containing compound or a mixture thereof.

35. (New) The process according to claim 1, wherein the silica-based particles obtained in the process have a specific surface area of at least $550 \text{ m}^2/\text{g SiO}_2$.

36. (New) An aqueous sol containing silica-based particles obtained by a process which comprises:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalisng the acid sol at an SiO_2 content within the range of from 4.5 to 8% by weight to form an alkalisng sol having a pH of at least 7;
- (c) allowing particle growth of the alkalisng sol for at least 10 minutes; and
- (d) alkalisng the obtained sol to a pH of at least 10.0.

37. (New) The aqueous sol according to claim 36, wherein the process further comprises:

- (e) concentrating the sol obtained according to (c).

38. (New) The aqueous sol according to claim 36, wherein the process further comprises:

- (e) concentrating the sol obtained according to (d).

39. (New) The aqueous sol according to claim 37, wherein it has a specific surface area of at least $95 \text{ m}^2/\text{g}$ aqueous sol.

40. (New) The aqueous sol according to claim 36, wherein the aqueous sol has a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.

41. (New) The aqueous sol according to claim 36, wherein the sol comprises an aluminum-containing compound, a boron-containing compound or a mixture thereof.

42. (New) The aqueous sol according to claim 36, wherein the silica-based particles have a specific surface area of at least $550 \text{ m}^2/\text{g}$ SiO_2 .

43. (New) A process for the production of an aqueous sol containing silica-based particles which comprises:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalising the acid sol at an SiO_2 content within the range of from 4.5 to 8% by weight to form an alkalised sol;
- (c) heat-treating the alkalised sol at a temperature of at least 30°C ; and
- (d) alkalising the heat-treated sol to a pH of at least 10.0.

44. (New) The process according to claim 43, wherein the process further comprises:

- (e) concentrating the alkalised sol obtained according to step (b).

45. (New) The process according to claim 43, wherein the process further comprises:

- (e) concentrating the alkalised sol obtained according to step (c).

46. (New) The process according to claim 43, wherein the process further comprises:

- (e) concentrating the alkalised sol obtained according to step (d).

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47. (New) The process according to claim 43, wherein the aqueous sol obtained in the process has a specific surface area of at least 90 m²/g aqueous sol.

48. (New) The process according to claim 43, wherein the aqueous sol obtained in the process has a specific surface area of at least 95 m²/g aqueous sol.

49. (New) The process according to claim 43, wherein the alkalisation according to (b) and (d) is carried out by means of an aqueous silicate solution.

50. (New) The process according to claim 43, wherein the heat-treatment according to (c) is carried out for 20 to 240 minutes.

51. (New) The process according to claim 43, wherein the alkalisation according to (d) produces a sol having a molar ratio of SiO₂ to M₂O, where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.

52. (New) The process according to claim 43, wherein the process further comprises addition of an aluminum-containing compound, a boron-containing compound or a mixture thereof.

53. (New) The process according to claim 43, wherein the silica-based particles obtained in the process have a specific surface area of at least 550 m²/g SiO₂.

54. (New) An aqueous sol containing silica-based particles obtained by a process comprising:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalising the acid sol at an SiO₂ content within the range of from 4.5 to 8% by weight to form an alkalised sol;
- (c) heat-treating the alkalised sol at a temperature of at least 30°C; and
- (d) alkalising the heat-treated sol to a pH of at least 10.0.

55. (New) The aqueous sol according to claim 54, wherein the process further comprises:

(e) concentrating the sol obtained according to (c).

56. (New) The aqueous sol according to claim 54, wherein the process further comprises:

(e) concentrating the sol obtained according to (d).

57. (New) The aqueous sol according to claim 54, wherein it has a specific surface area of at least $95 \text{ m}^2/\text{g}$ aqueous sol.

58. (New) The aqueous sol according to claim 54, wherein it has a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.

59. (New) The aqueous sol according to claim 54, wherein it comprises an aluminum-containing compound, a boron-containing compound or a mixture thereof.

60. (New) The aqueous sol according to claim 54, wherein the silica-based particles have a specific surface area of at least $550 \text{ m}^2/\text{g}$ SiO_2 .

61. (New) A process for the production of an aqueous sol containing silica-based particles which comprises:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalising the acid sol at an SiO_2 content within the range of from 4.5 to 8% by weight to form an alkalisied sol;
- (c) heat-treating the alkalisied sol at a temperature within the range of from 35 to 95°C for 20 to 240 minutes;
- (d) alkalising the heat-treated sol to a pH of at least 10.0 and a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1;
- (e) concentrating the sol obtained according to (c) or (d); and

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(f) providing an aqueous sol which has a specific surface area of at least 95 m²/g aqueous sol and contains silica-based particles which have a specific surface area of at least 550 m²/g SiO₂.

62. (New) The process according to claim 61, wherein the alkalisation according to step (b) and step (d) is carried out by means of an aqueous silicate solution.

63. (New) The process according to claim 61, wherein the alkalisation according to (d) produces a pH of at least 10.6.

64. (New) An aqueous sol containing silica-based particles obtained by a process which comprises:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalising the acid sol at an SiO₂ content within the range of from 4.5 to 8% by weight to form an alkalised sol;
- (c) heat-treating the alkalised sol at a temperature within the range of from 35 to 95°C for 20 to 240 minutes;
- (d) alkalising the heat-treated sol to a pH of at least 10.0 and a molar ratio of SiO₂ to M₂O, where M is alkali metal or ammonium, within the range of from 15:1 to 30:1;
- (e) concentrating the sol obtained according to step (c) or step (d); and
- (f) providing an aqueous sol which has a specific surface area of at least 95 m²/g aqueous sol and contains silica-based particles which have a specific surface area of at least 550 m²/g SiO₂.

65. (New) The aqueous sol according to claim 64, wherein it has a pH of at least 10.6.

66. (New) An aqueous sol containing silica-based particles, said sol has a specific surface area of at least 115 m²/g aqueous sol and said silica-based particles have a specific surface area of at least 550 m²/g SiO₂ and less than 1000 m²/g SiO₂.